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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,104	11/04/2003	Gregory B. Altshuler	105090-0129	6794

21125 7590 01/29/2007
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EXAMINER

JOHNSON III, HENRY M

ART UNIT	PAPER NUMBER
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3739

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/702,104

Applicant(s)

ALTSHULER ET AL.

Examiner

Henry M. Johnson, III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,10-20,22,23 and 56-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 73 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,10-14,16-20,22 and 56-72 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 121206.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

Response to Arguments

Applicant's arguments filed November 24, 2006, with respect to the claims have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. New grounds of rejection are enclosed herein.

Information Disclosure Statement

Applicant should note that the large number of references in the attached IDS have been considered by the examiner in the same manner as other documents in Office search files are considered by the examiner while conducting a search of the prior art in a proper field of search. See MPEP 609.05(b). Applicant is requested to point out any particular references in the IDS which they believe may be of particular relevance to the instant claimed invention in response to this office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

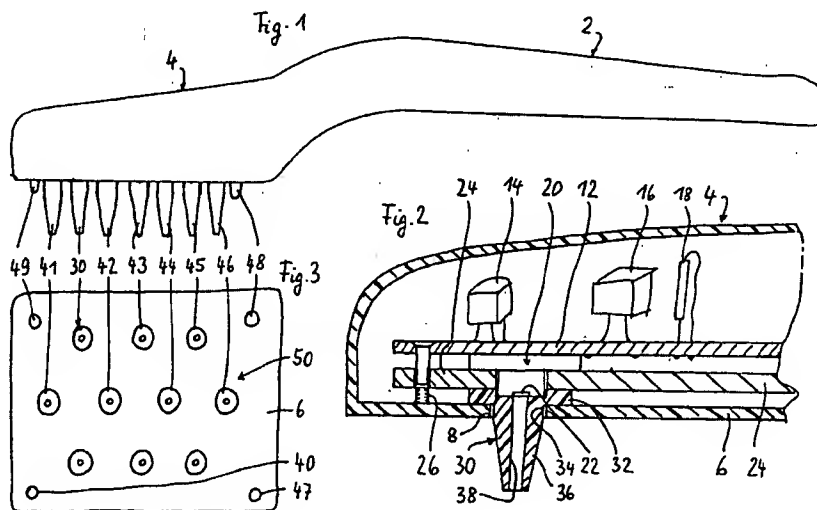
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4, 5, 8, 10-14, 19, 20, 22 and 56-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent G 91 02 407.2 to Mink in view of U.S. Patent 5,835,648 to Narcisco et al. Mink discloses a hairbrush for delivery of optical radiation via light guides, each guide having a laser diode as its source (Fig. 1, # 20). The multiple diodes are an array. A cooling radiator (Fig. 2, # 24) acts as a heat



sink for the radiation sources. The light conductors are interpreted as bristles of a brush and are capable of providing a compressive force during use. Mink does not teach total internal reflection. Narcisco et al. disclose surface illuminator and teach the concept of controlling the delivery of radiation based on the difference in the index of refraction between the tissue and the medium directly in contact with the tissue through which the treatment light must first pass to reach the tissue (Col. 1, lines 40-50). U.S. Patent 6,273,884 to Altshuler et al. as previously cited, also teaches this concept. It would have been obvious to one skilled in the art to use the controlled refraction out of the light guide as taught by Narcisco et al. in the invention of Mink as a safety precaution to prevent stray radiation from reaching an unintended target.

Regarding claims 12, 59, 60, 66 and 67, laser diodes are well known in the art to be available in a wide range of wavelengths and intensities. It would have been obvious to one

skilled in the art to select one or more wavelengths and/or intensities as appropriate for the desired treatment.

Regarding claim 13, Mink is silent regarding the operation of the diodes, however, a skilled artisan would select continuous or pulsed mode as is well known in the art.

Regarding claims 56, 62 and 69, the reflection of radiation is an inherent property of the total internal reflection concept.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent G 91 02 407.2 to Mink in view of U.S. Patent 5,835,648 to Narcisco et al. as applied to claim 1 above and further in view of U.S. Patent 5,300,097 to Lerner et al. Mink and Narcisco et al. are discussed above, but do not teach specific intensities.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent G 91 02 407.2 to Mink in view of U.S. Patent 5,835,648 to Narcisco et al. as applied to claim 1 above and further in view of U.S. Patent 6,572,637 to Yamazaki et al. Mink and Narcisco et al. are discussed above, but do not teach a contact detection means. Yamazaki et al. disclose a handheld laser skin treatment device with a laser diode projecting radiation through a cylindrical adjuster that includes a microswitch responsive to adjuster's touching the skin for making the electric power supply to turn on, and responsive to adjuster's leaving the skin for making the electric power supply to turn off (Col. 3, lines 24-27). It would have been obvious to one skilled in the art to include the contact detector as taught by Yamazaki et al. in the invention of Mink in view of Narcisco et al. as an additional safety against spurious radiation. U.S. Patent 5,133,102 to Sakuma discloses an alternative contact sensor further substantiating the obviousness of such detection in the art.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent G 91 02 407.2 to Mink in view of U.S. Patent 5,835,648 to Narcisco et al. as applied to claim 1 above and further in view of U.S. Patent 5,445,608 to Chen et al. Chen et al. teach a device that provides for the delivery of an agent to the treatment site concurrent with radiation (Fig. 16A). It would have been obvious to one skilled in the art to use the agent delivery as taught by Chen in the invention of Mink in view of Narcisco et al. as the use photosensitizers are well known to a skilled artisan as would be the various methodologies for delivery of a photosensitizer; i.e. systemic, direct, etc.

Allowable Subject Matter

Claims 15 and 73 are allowed.

Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M. Johnson, III whose telephone number is (571) 272-4768. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Henry M. Johnson, III
Primary Examiner
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